

# List of Publications

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## Diploma Thesis:

Topologische Tensorprodukte und Tensoralgebren stetiger Funktionen, Johannes Gutenberg-Universität Mainz, 1969

## Dissertation:

Gewichtete Räume stetiger vektorwertiger Funktionen und das injektive Tensorprodukt, Johannes Gutenberg-Universität Mainz, 1970

1. Function algebras and a theorem of Mergelyan for vector-valued functions, pp. 1 – 10 in “*Papers from the Summer Gathering on Function Algebras*”, University of Aarhus (Denmark), Various Publications Series No. **9** (1969)
2. Gewichtete Räume stetiger vektorwertiger Funktionen und das injektive Tensorprodukt I, *J. reine angew. Math.* **259** (1973), 186 – 210
3. Gewichtete Räume stetiger vektorwertiger Funktionen und das injektive Tensorprodukt II, *J. reine angew. Math.* **260** (1973), 133 – 146
4. Lokalkonvexe Unterräume in topologischen Vektorräumen und das  $\varepsilon$ -Produkt, *manuscripta math.* **8** (1973), 143 – 172 (with R. Meise)
5. Distributionen mit Werten in topologischen Vektorräumen I, *manuscripta math.* **10** (1973), 35 – 63 (with R. Meise)
6. Distributionen mit Werten in topologischen Vektorräumen II, *manuscripta math.* **10** (1973), 313 – 357 (with R. Meise)
7. Injektive Tensorprodukte und Slice-Produkte gewichteter Räume stetiger Funktionen, *J. reine angew. Math.* **266** (1974), 121 – 131
8. Bemerkungen über die Approximationseigenschaft lokalkonvexer Funktionenräume, *Math. Ann.* **209** (1974), 99 – 107 (with R. Meise)
9. The approximation property for weighted function spaces, pp. 3 – 25 in “*Function Spaces and Dense Approximation*”, Proc. Conference Bonn 1974, Bonner Math. Schriften **81** (1975)
10. Tensor products of weighted spaces, pp. 26 – 58 in “*Function Spaces and Dense Approximation*”, Proc. Conference Bonn 1974, Bonner Math. Schriften **81** (1975)
11. Lokalkonvexe Garben und gewichtete induktive Limites  $\mathcal{F}$ -morpher Funktionen, pp. 59 – 72 in “*Function Spaces and Dense Approximation*”, Proc. Conference Bonn 1974, Bonner Math. Schriften **81** (1975) (with B. Gramsch and R. Meise)
12. Verallgemeinerungen des Satzes von Stone-Weierstraß, pp. 109 – 135 in “*Jahrbuch Überblicke Mathematik 1975*”, BI, Mannheim

On demand of L. Nachbin, an updated English translation of this survey article appeared as:

- 12a. Some generalizations of the Weierstrass and Stone-Weierstrass theorems, *Anais Acad. Brasil. Ciên.* **49** (4) (1977), 507 – 523
13. Neuere Ergebnisse zum Approximationsproblem von Banach-Grothendieck, pp. 45 – 72 in “*Jahrbuch Überblicke Mathematik 1976*”, BI, Mannheim
14. Induktive Limites gewichteter Räume stetiger und holomorpher Funktionen, *J. reine angew. Math.* **282** (1976), 186 – 220 (with R. Meise)
15. Approximationseigenschaft, Lifting und Kohomologie bei lokalkonvexen Produktgarben, *manuscripta math.* **19** (1976), 319 – 364 (with B. Gramsch and R. Meise)
16.  $H(K)$  et  $(H(U), \tau_\omega)$  sur des espaces métrisables nucléaires ou de Schwartz, *C. R. Acad. Sci. Paris, Série A*, t. **283**, 325 – 327 (27 septembre 1976) (with R. Meise)
17. Nuclearity and the Schwartz property in the theory of holomorphic functions on metrizable locally convex spaces, pp. 93 – 129 in “*Infinite Dimensional Holomorphy and Applications*”, Editor: M. C. Matos, North-Holland Math. Studies **12** (1977) (with R. Meise)
18. A question on inductive limits of weighted locally convex function spaces, pp. 213 – 226 in “*Atas do 11º Colóquio Brasileiro de Matemática*” (Poços de Caldas, 7/1977), Vol. I, CNPq-IMPA, Rio de Janeiro 1978
19. Aspects of inductive limits in spaces of germs of holomorphic functions on locally convex spaces and applications to a study of  $(H(U), \tau_\omega)$ , pp. 111 – 178 in “*Advances in Holomorphy*”, Editor: J. A. Barroso, North-Holland Math. Studies **34** (1979) (with R. Meise)
20. A remark on vector-valued approximation on compact sets, approximation on product sets, and the approximation property, pp. 27 – 62 in “*Approximation Theory and Functional Analysis*”, Editor: J. A. Prolla, North-Holland Math. Studies **35** (1979)
21. The approximation-theoretic localization of Schwartz’s approximation property for weighted locally convex function spaces and some examples, pp. 39 – 149 in “*Advances in Functional Analysis, Holomorphy and Approximation Theory*”, Editor: S. Machado, Springer Lecture Notes in Mathematics **843** (1981)
22. A projective description of weighted inductive limits, *Transact. Amer. Math. Soc.* **272** (1982), 107 – 160 (with R. Meise and W.H. Summers)
23. Köthe sets and Köthe sequence spaces, pp. 27 – 91 in “*Functional Analysis, Holomorphy and Approximation Theory*”, Editor: J. A. Barroso, North-Holland Math. Studies **71** (1982) (with R.G. Meise and W.H. Summers)
24. Distinguished echelon spaces and the projective description of weighted inductive limits of type  $V_d C(X)$ , pp. 169 – 226 in “*Aspects of Mathematics and its Applications*”, Editor: J. A. Barroso, North-Holland Math. Library 1986 (with R. Meise)
25. Weighted inductive limits and their projective descriptions, Proceedings of the Silivri Conference in Functional Analysis 1985, *Doğa Tr. J. Math.* **10**, 1 (1986), 54 – 82 (with R. Meise)

26. La condition de densité et les espaces échelonnés distingués, *C. R. Acad. Sci. Paris*, t. **303**, Série I, n° 10 (1986), 459 – 462 (with J. Bonet)
27. Stefan Heinrich’s density condition for Fréchet spaces and the characterization of the distinguished Köthe echelon spaces, *Math. Nachr.* **135** (1988), 149 – 180 (with J. Bonet)
28. An introduction to locally convex inductive limits, pp. 35 – 133 in “*Functional Analysis and its Applications*” (Proceedings CIMPA Autumn School, Nice 1986), Editor: H. Hogbe-Nlend, World Scientific, Singapore-New Jersey-Hong Kong 1988
29. Dual density conditions in (DF)-spaces, I., *Results in Math.* **14** (1988), 242 – 274 (with J. Bonet)
30. Dual density conditions in (DF)-spaces, II., *Bull. Soc. Roy. Sci. Liège* **57** (1988), 567 – 589 (with J. Bonet)
31. Some recent results on  $\mathcal{VC}(X)$ , pp. 181 – 194 in “*Advances in the Theory of Fréchet Spaces*” (Istanbul 1988), Editor: T. Terzioğlu, NATO ASI Series, C, Vol. **287**, Kluwer Acad. Publ. 1989 (with J. Bonet)
32. Projective descriptions of weighted inductive limits: The vector-valued cases, pp. 195 – 221 in “*Advances in the Theory of Fréchet Spaces*” (Istanbul 1988), Editor: T. Terzioğlu, NATO ASI Series, C, Vol. **287**, Kluwer Acad. Publ. 1989 (with J. Bonet)
33. Density conditions in Fréchet and (DF)-spaces, pp. 59 – 75 in the Proceedings of the Congress on Functional Analysis, El Escorial (Madrid) 1988, *Rev. Mat. Univ. Complutense Madrid* **2**, Núm. suplement. (1989) (with J. Bonet)
34. (DF)-spaces of type  $CB(X, E)$  and  $C\bar{V}(X, E)$ , *Note di Mat.* **10**, Suppl. n. 1 (Special volume dedicated to the memory of G. Köthe) (1990), 127 – 148 (with J. Bonet and J. Schmets)
35. Completeness of the (LB)-spaces  $\mathcal{VC}(X)$ , *Arch. Math. (Basel)* **56** (1991), 281 – 285 (with J. Bonet)
36. Biduality in Fréchet and (LB)-spaces, pp. 113 – 133 in “*Progress in Functional Analysis*” (Proceedings of the 1990 Peñíscola Meeting on the occasion of the 60th birthday of M. Valdivia), Editors: K.D. Bierstedt, J. Bonet, J. Horváth, M. Maestre, North-Holland Math. Studies **170** (1992) (with J. Bonet)
37. Weighted inductive limits of spaces of holomorphic functions, Proceedings of “AIMC 23”, Iran 1992/93 (12 pages)
38. Biduals of weighted Banach spaces of analytic functions, *J. Austral. Math. Soc. (Series A)* **54** (1993), 70 – 79 (with W.H. Summers)
39. Weighted spaces of holomorphic functions on balanced domains, *Michigan Math. J.* **40** (1993), 271 – 297 (with J. Bonet and A. Galbis)
40. A question of D. Vogt on (LF)-spaces, *Arch. Math. (Basel)* **61** (1993), 170 – 172 (with J. Bonet)
41. Weighted (LF)-spaces of continuous functions, *Math. Nachr.* **165** (1994), 25 – 48 (with J. Bonet)

42. Vector-valued holomorphic germs on Fréchet-Schwartz spaces, *Proc. R. Ir. Acad.* **94A**, No. 1 (1994), 31 – 46 (with J. Bonet and A. Peris)
43. The  $\varepsilon$ -(tensor) product of a (DFS)-space with arbitrary Banach spaces, pp. 35 – 51 in “*Functional Analysis, Proceedings of the First International Workshop held at Trier University, Germany, September 26 – October 1, 1994*”, Editors: S. Dierolf, S. Dineen, P. Domański, Walter de Gruyter, Berlin–New York, 1996
44. Associated weights and spaces of holomorphic functions, *Studia Math.* **127 (2)** (1998), 137 – 168 (with J. Bonet and J. Taskinen)
45. An operator representation for weighted spaces of vector valued holomorphic functions, *Results Math.* **36** (1999), 9 – 20 (with S. Holtmanns)
46. An operator representation for weighted inductive limits of spaces of vector valued holomorphic functions, *Bull. Belg. Math. Soc.* **8** (2001), 577 – 589 (with S. Holtmanns)
47. Biduality in (LF)-spaces, *Rev. Real Acad. Cien. Madrid, Serie A: Mat.* **95**, (2) (2001), 171 – 180 (with J. Bonet)
48. A survey of some results and open problems in weighted inductive limits and projective description for spaces of holomorphic functions, *Bull. Soc. Roy. Sci. Liège* **70**, 4-5-6 (dedicated to the memory of P. Laubin) (2001), 167 – 182
49. Projective description of weighted (LF)-spaces of holomorphic functions on the disc, *Proc. Edinburgh Math. Soc.* **46** (2003), 435–450 (with J. Bonet)
50. Some aspects of the modern theory of Fréchet spaces, *Rev. Real Acad. Cien. Madrid, Serie A: Mat.* **97**, (2) (2003), 159–188 (with J. Bonet)
51. Weak holomorphy and other weak properties, *Bull. Soc. Roy. Sci. Liège* **72** (6) (2004), 377–381 (with S. Holtmanns)
52. On the mathematical work of Klaus Floret, *Note di Mat.* **25**, issue 1 (special issue dedicated to the memory of K. Floret), 2005-2006 (2006), 1-28
53. Köthes gestufte Räume und Stufenräume: Eine Einführung – und etwas Problemgeschichte, pp. 151–164 in: “*Aus der Geschichte der Frankfurter Mathematik, Festschrift zu den 100. Geburtstagen von Ruth Moufang, Gottfried Köthe, Wolfgang Franz*”, Schriften des Universitätsarchivs Frankfurt am Main, Nr. 1 (2005)
54. Weighted (LB)-spaces of holomorphic functions:  $\mathcal{V}H(G) = \mathcal{V}_0H(G)$  and completeness of  $\mathcal{V}_0H(G)$ , *J. Math. Anal. Appl.* **323** (2006), 747–767 (with J. Bonet)
55. On the mathematical work of Jean Schmets, *Bull. Belg. Math. Soc. Simon Stevin* **14** (2007), 385–405 (with J. Bonet)
56. Weighted inductive limits of spaces of entire functions, *Monatsh. Math.* **154** (2) (2008) 103–120 (with J. Bonet and J. Taskinen)
57. Projective limits of weighted (LB)-spaces of continuous functions (2009), *Monatsh. Math.* **154** (2) (2009), 103–120 (with S. Agethen and J. Bonet)

**Co-Editor** of the following Proceedings volumes:

- I. *Functional Analysis: Surveys and Recent Results*, Proc. Conference on Functional Analysis, Paderborn (November 17 – 21, 1976), xi + 290 p., North-Holland Math. Studies **27** (1977) (with B. Fuchssteiner)
- II. *Functional Analysis: Surveys and Recent Results II*, Proc. Conference on Functional Analysis, Paderborn (January 31 – February 5, 1979), xi + 342 p., North-Holland Math. Studies **38** (1980) (with B. Fuchssteiner)
- III. *Functional Analysis: Surveys and Recent Results III*, Proc. Conference on Functional Analysis, Paderborn (May 24 – 29, 1983), xiv + 381 p., North-Holland Math. Studies **90** (1984) (with B. Fuchssteiner)
- IV. *Progress in Functional Analysis*, Proc. Peñíscola Meeting on the Occasion of the 60th Birthday of Professor M. Valdivia (22 – 27 October, 1990), xxviii + 431 p., North-Holland Math. Studies **170** (1992) (with J. Bonet, J. Horváth and M. Maestre)
- V. *Functional Analysis, Proceedings of the Essen Conference*, xviii + 526 p., M. Dekker Lecture Notes in Pure and Applied Mathematics **150** (1994) (with A. Pietsch, W. Rueß, D. Vogt)
- VI. *Recent Progress in Functional Analysis*, Proc. Valencia Meeting on the Occasion of the 70th Birthday of Professor M. Valdivia (3 – 7 July, 2000), xlv + 423 p., North-Holland Math. Studies **189** (2001) (with J. Bonet, M. Maestre and J. Schmets)

#### Reports, communications etc.:

- i. Europäische Mathematische Gesellschaft und erster Europäischer Mathematik-Kongreß in Paris, 6.-10. Juli 1992, “*Jahrbuch Überblicke Mathematik 1993*”, 137 – 146, Vieweg-Verlag (1992) (with S.D. Chatterji)
- ii. DMV-AMS-Tagung in Heidelberg 1993, *Mitteilungen der DMV* 2-1993, 33 – 34
- iii. Die Kunde vom Beweis der Fermatschen Vermutung als persönliche Fallstudie zum Thema “Mathematik und Öffentlichkeit”, “*Jahrbuch Überblicke Mathematik 1994*”, 257 – 261, Vieweg-Verlag (1993)
- iv./iv’. Bericht über die “General Assembly” der “International Mathematical Union” in Luzern, 31.7./1.8.1994, *Mitteilungen der DMV* 4-1994, 52 – 53 and *Rundbrief der GAMM* 1994–Brief 3, 6 – 7
- v. Fermat’s Last Theorem – The famous mathematical problem finally solved?, “*Al Khairia*” (King Faisal Foundation, Saudi Arabia) **6**, No. 19 (July-September 1994), pages 3 and 7
- On demand of M. Oudadess (Rabat), an updated version (September 1994) of the last article appeared as:
- v’. Fermat’s Last Theorem – will the famous mathematical problem be solved soon?, Bull. d’Information de la Soc. Math. du Maroc **12** (Novembre 1994), 41 – 45
- vi. Bericht über die Sitzung des Councils der EMS in Budapest (Ungarn) am 20./21.7. 1996, *Rundbrief der GAMM* 1996–Brief 2, 35 – 38
- vii. Europäischer Mathematik-Kongreß ’96, *DMV-Mitteilungen* 4-1996, 11 – 14

- viii. Das Zbl. MATH-Konsortium der DMV, *DMV-Mitteilungen* 3-1999, 5 – 6 (with B. Wegner)
- ix. Die gemeinsame Tagung der BMS und DMV in Lüttich, 8.–10. Juni 2001, *DMV-Mitteilungen* 3-2001, 56
- x. Gemeinsame Tagung der AMS, DMV und ÖMG an der Johannes Gutenberg-Universität Mainz, 16.-19. Juni 2005, *DMV-Mitteilungen* 12-1/2004, 7
- xi. Zweite gemeinsame Tagung der AMS, DMV und ÖMG, *DMV-Mitteilungen* 13-1/2005, 4
- xii. Zentralblatt MATH-Konsortium der DMV, *DMV-Mitteilungen* 13-1/2005, 57 (with B. Wegner)